

Metropolitan Transportation Commission Programming and Allocations Committee

December 11, 2013

Resolution No. 4123

Subject: Proposed Transit Core Capacity Challenge Grant Program, targeting federal, state and regional funds to high-priority transit capital projects between 2015 and 2030

Background: This item presents staff's proposal to fund transit capital replacement and rehabilitation needs and key transit infrastructure enhancements needed to support future transit service expansion. The proposal was presented as an informational item in November. Plan Bay Area identifies a total funding shortfall of \$17 billion over 28 years to achieve an optimal state of good repair for the region's transit system. Further, the Plan's in-fill and transit oriented growth strategy relies on a well maintained transit system to meet performance targets. This item supports the Plan's overall strategy by identifying funding for the next fifteen years to support transit capital needs for the region's three largest transit operators.

The \$7.5 billion Core Capacity Challenge Grant proposal:

- Focuses on the San Francisco Municipal Transportation Agency (SFMTA), BART, and AC Transit – the three transit operators that carry 80% of the region's passengers as well as more than three-quarters of the minority and low-income passengers
- Leverages regional discretionary funds and local contributions, including proposed Cap and Trade revenue
- Accelerates and solidifies funding for fleet replacement projects, and identifies new funding for key enhancement projects
- Requires that the participating operators meet the performance objectives of the Transit Sustainability Project

Staff is proposing to increase the BART car purchase by 30 cars through a new regional contribution of \$100 million in Cap and Trade funding. This augmentation is critical for BART's extended service to Silicon Valley. This BART extension connects the region's largest city to the Bay Area's major rail network. From a land use perspective, the project will extend BART service to the county that is expected to construct 33% of all the region's new housing units by 2040. As detailed in item 3a.i., this brings the recommended Cap and Trade funding contribution to the Transit Core Capacity Challenge Grant Program to \$900 million.

There has also been a minor correction to the cost and funding plan for the SFMTA fleet replacement and expansion projects based on new information provided by SFMTA staff. The table below summarizes the proposed Muni revision:

Project	Change	Cost Impact
SFMTA Fleet Replacement	Adds 25 buses inadvertently left out of the original fleet plan	\$20 million increase
SFMTA Fleet Enhance & Expand	Reduces the number of expansion light rail vehicles from 77 to 74	\$22 million decrease

Issues:

The following information is provided in response to the discussion and questions raised during the public outreach on this item and the Cap and Trade Funding Framework.

- Greenhouse Gas Emission (GHG) Benefits: Staff reviewed the results of the Plan Bay Area Project Performance Assessment, which included detail on GHG emissions reductions for several major core capacity transit projects. Attachment A summarizes the GHG emission reduction range for these projects, from 11,000 to 23,000 annual metric tons, as well as the cost-effectiveness of the GHG reduction. The projects are moderate to high compared to other Plan Bay Area projects in terms of cost-effectiveness. The projects analyzed are a close proxy for the recommended investments of Cap and Trade funding for the Transit Core Capacity Challenge Grant Program.
- Communities of Concern: Attachment B further illustrates the strong geographic overlap between the service areas of AC Transit, BART, SFMTA and the region's communities of concern. The three operators serve over 75% of the low-income and minority transit passengers in the region. For most of the transit systems in the region, the percentage of low-income and minority passengers served is high; however, in total numbers, the three largest operators serve the lion's share of these passengers.
- Transit Sustainability Project (TSP) Performance Metrics: Attachment C illustrates preliminary information on all TSP performance metrics, including cost per passenger mile, which shows that all operators are either making positive progress or achieving a 5% reduction for at least one measure. Because there is discretion in how each operator establishes the average trip length for the cost per passenger mile metric, staff will continue to refine this metric to ensure consistency in the baseline and on-going measurement.

The proposal has been discussed with the following Committees since the November Committee meeting:

- Policy Advisory Council (November 13)
- Partnership Technical Advisory Committee (November 18)
- Regional Advisory Working Group (December 2)
- Transit Finance Working Group (December 4)

The comments from the meetings that occurred prior to the packet mailing are included as Attachment 1 to item 3a.i.

Additional information is included in the attached resolution and attachments.

Recommendation:

Refer MTC Resolution No. 4123 to the Commission for approval.

Attachment:

Attachment A: Greenhouse Gas Emission Data
Attachment B: Communities of Concern and Service Area Map
Attachment C: TSP Performance Metrics
MTC Resolution No. 4123

Attachment A**Measuring the GHG Reduction of Similar Transit Project Investments**

Project	Project Description	Benefit-Cost Ratio	Annual GHG Reduction	GHG Cost-Effectiveness
			<i>in metric tons*</i>	<i>in metric tons reduced per million dollars*</i>
BART Metro Program	Capital improvements to the existing BART system (such as the Bay Fair Connector and San Francisco turnback) which would allow for new service patterns, emphasizing increased frequency in the urban core.	>60	17,000	>20,000
SFMTA Transit Effectiveness Project	Capital enhancements (dedicated lanes, signal priority, etc.) to support more frequent service and greater capacity on some of Muni's most heavily utilized lines.	11	14,000	1,800
BART Service Frequency Improvements	Increased BART frequencies on existing route structure to support greater levels of ridership, requiring improvements to fleet size, station capacity, and facility capacity.	2	23,000	400
AC Transit Service Frequency Improvements	Increased AC Transit frequencies on the urban core routes of the AC Transit system.	2	11,000	200

** = annual project impact for horizon year 2035; cost-effectiveness calculated using annualized cost in year 2013 dollars*

Source: Plan Bay Area Project Performance Assessment, 2012

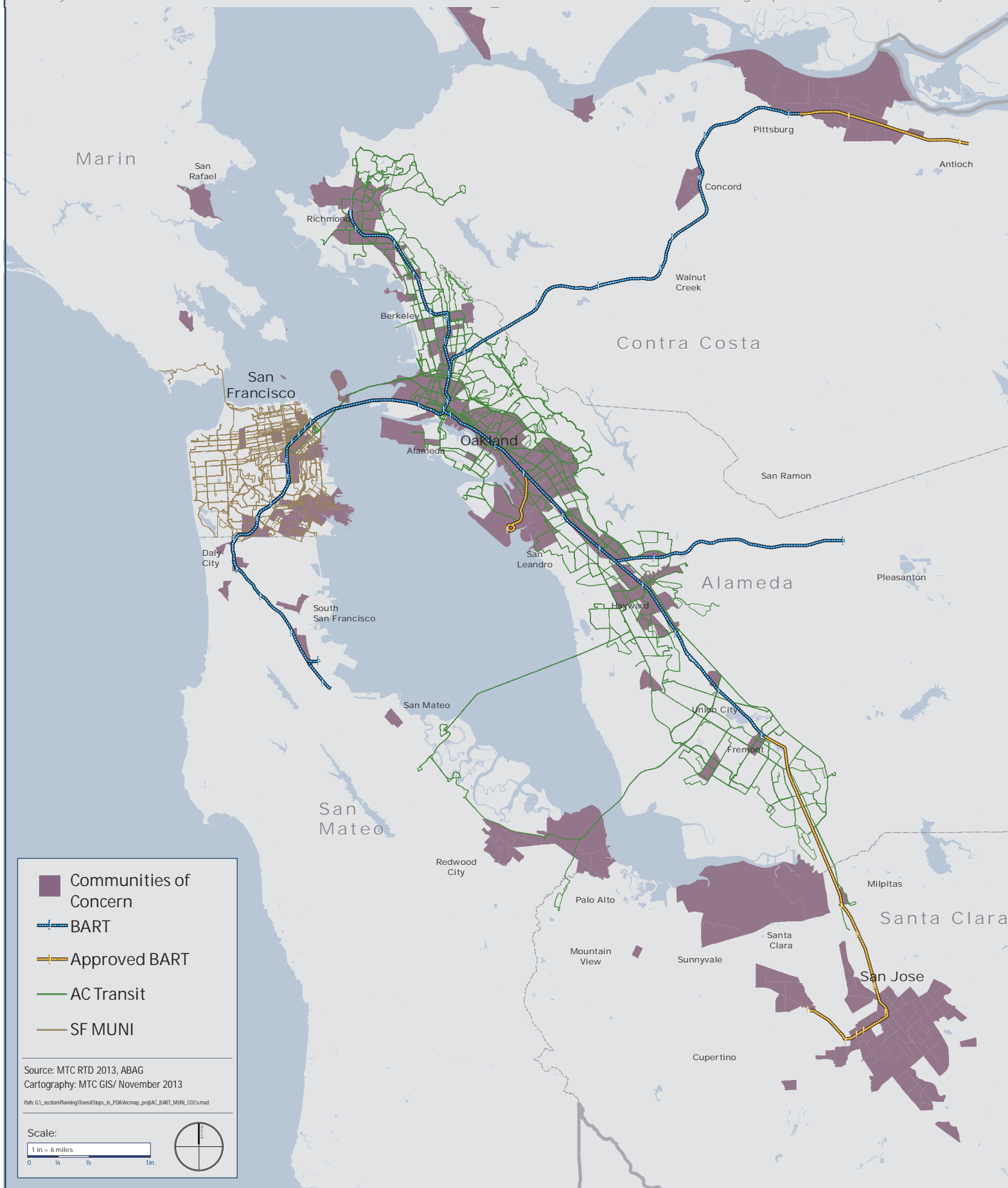
Attachment B: Communities of Concern



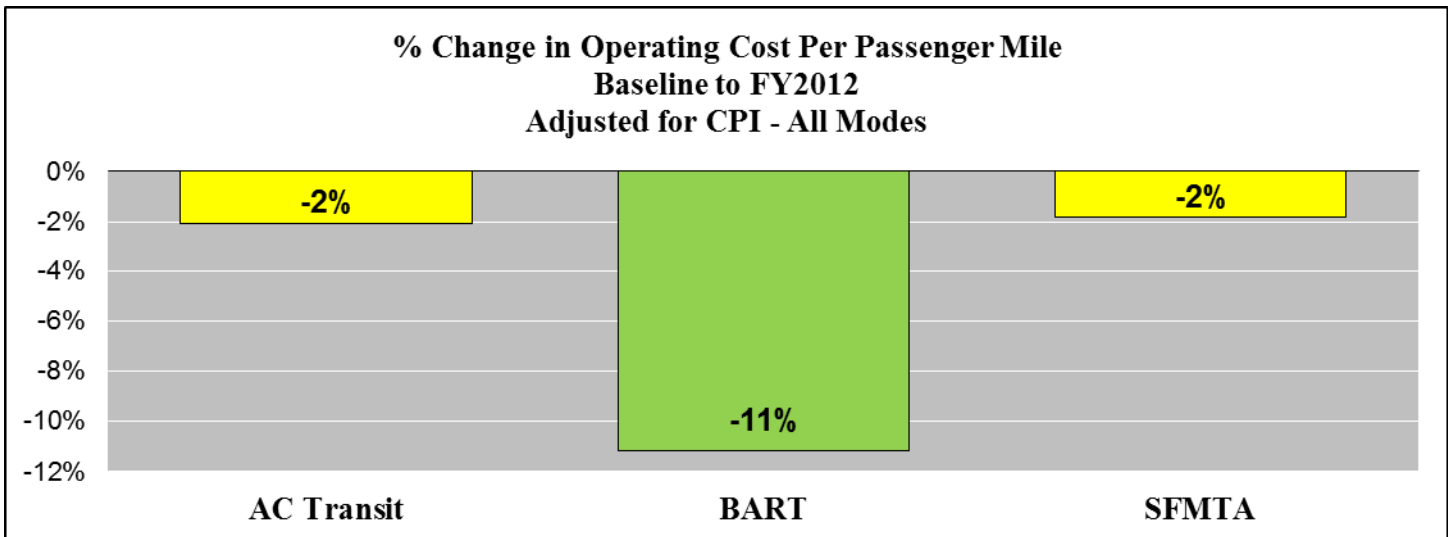
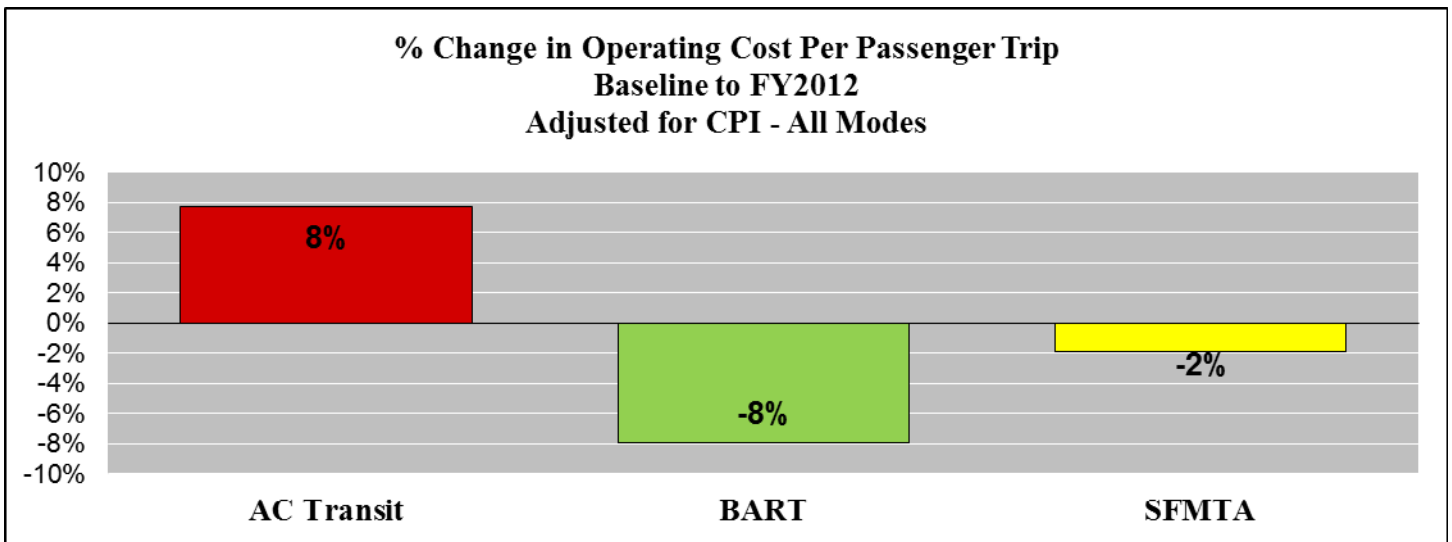
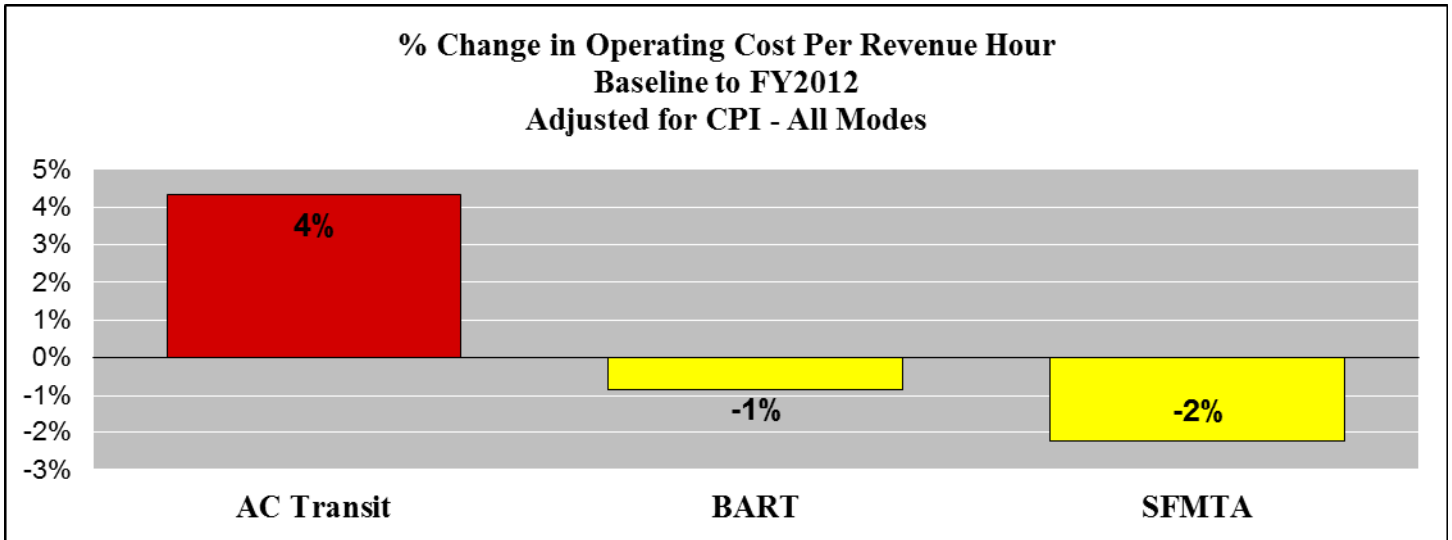
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Transportation for the nine-county
San Francisco Bay Area

Analytical Services

Geographic Information Systems



Attachment C: TSP Performance Metrics



Source: National Transit Database (NTD).

Date: December 18, 2013
W.I.: 1512
Referred by: PAC

ABSTRACT

Resolution No. 4123

This resolution establishes an investment plan for MTC's Transit Core Capacity Challenge Grant Program that targets federal, state, and regional funds to high-priority transit capital projects between FY2014-15 and FY2029-30.

This resolution includes the following attachments:

- A – Funding Plan and Revenue Sources and Assumptions
- B – Project Descriptions
- C – Terms and Conditions

Further discussion of these actions is contained in the Programming and Allocations memorandum dated November 13, 2013 and Summary Sheet dated December 11, 2013.

Date: December 18, 2013
W.I.: 1512
Referred by: PAC

RE: Transit Core Capacity Challenge Grant Program

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 4123

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Section 66500 et seq.; and

WHEREAS, the San Francisco Bay Area Rapid Transit District (BART) is a rapid transit district providing rail transit service in the San Francisco Bay Area; and

WHEREAS, the San Francisco Municipal Transportation Agency (SFMTA) provides bus, trolley, light rail, and cable car/historic rail car service in the City of San Francisco, California; and

WHEREAS, the Alameda-Contra Costa Transit District (AC Transit) is constituted as a special district under California law and is an Oakland based public transit agency serving the western portions of Alameda and Contra Costa counties in the San Francisco Bay Area; and

WHEREAS, Plan Bay Area (“Plan”), the region’s long-range transportation and housing plan adopted by MTC, provides the planning foundation for transportation improvements and regional growth throughout the San Francisco Bay Area through 2040; and

WHEREAS, the Plan’s in-fill and transit-oriented growth strategy relies on a well-maintained and robust transit system to meet greenhouse gas emissions reduction targets and other Plan performance objectives; and

WHEREAS, the Plan identifies a total funding need of \$47 billion over nearly three decades to achieve an optimal state of repair for the region’s public transit network; and

WHEREAS, the Core Capacity Challenge Grant Program (“the Program”) addresses funding for transit capital replacement and rehabilitation needs as well as for key transit infrastructure enhancements needed to support future transit service expansion for AC Transit, BART and SFMTA; and

WHEREAS, the Program targets federal, state and regional funds to high-priority transit capital projects for AC transit, BART and SFMTA; and

WHEREAS, federal, state and regional funds will continue to be required to finance the Program including those funds which are reasonably expected to be available under current conditions, and new funds which need to be secured in the future through advocacy with state and federal legislatures and the electorate; now therefore be it

RESOLVED, that the Core Capacity Challenge Grant Program is a comprehensive funding strategy of local, regional, state and federal funding sources as outlined in Attachment A, attached hereto and incorporated herein as though set forth at length; and, be it further

RESOLVED, that MTC’s commitment of funding for the Program is limited to the total amount of MTC funding shown in Attachment A; and be it further

RESOLVED, that MTC agrees to program Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) funds as set forth in Attachment A in a timely manner in order to meet cash flow needs and minimize financing costs, subject to Congressional authorization and appropriation of funds, and MTC’s ability to meet other critical regional transit capital needs; and be it further

RESOLVED, that Attachment B lists the descriptions of the AC Transit, BART and SFMTA projects that will be funded under the Program; and be it further

RESOLVED, that the funding commitments included in Attachment A are subject to the terms and conditions outlined in Attachment C, attached hereto and incorporated herein as though set forth at length.

METROPOLITAN TRANSPORTATION COMMISSION

Amy Rein-Worth, Chair

The above resolution was entered into by the
Metropolitan Transportation Commission
at a regular meeting of the Commission held
in Oakland, California, on December 18, 2013

Attachment A
Core Capacity Challenge Grants - Funding Plan (\$ Millions)

Project	Project Cost	Proposed Local \$				Funding Sources for Remaining Need						Total Funding
		BART	SFMTA	AL/CC Sales Tax/Parcel Tax	VTA	FTA/STP	AB664 Bridge Tolls	BATA Project Savings	SFO Net Op Revenue	Cap & Trade	Core Capacity New Starts	
BART Rail Cars (470 cars beyond current funding commitment)	1,546	393				743	82	83	145	100		1,546
BART Train Control	700	267				163				126	144	700
BART Hayward Maint. Center	433	258			175							433
Subtotal BART	2,679	918	-	-	175	906	82	83	145	226	144	2,679
SFMTA Fleet Replacement	2,644		770			1,746	44	84				2,644
SFMTA Fleet Enhance & Expand	648		248							400		648
SFMTA Facilities Core Improvements	209		142							67		209
Subtotal SFMTA (1)	3,502	-	1,160	-	-	1,746	44	84	-	467	-	3,502
AC Transit Fleet Replacement	780			195		477	25	83				780
AC Transit Fleet Expansion	90			40		5				45		90
AC Transit Facility Repl/Rehab	268			106						162		268
Subtotal AC Transit	1,138	-	-	341	-	481	25	83	-	207	-	1,138
Financing	200					200						200
TOTAL	7,519	918	1,160	341	175	3,333	152	250	145	900	144	7,519

(1) SFMTA cost estimates adjusted to use regional cost estimates for buses and LRVs, and converted to year-of-expenditure dollars

Attachment A

Revenue Sources and Assumptions

- Local Funding:
 - BART: For BART, the approximately \$900 million local contribution is comprised of fare revenue and Proposition 1A High Speed Rail connecting operator funds approved for the rail car replacement project. In addition, \$175 million in funding will be provided by the Santa Clara Valley Transit Authority as part of their agreement to contribute to core capacity projects, as BART will soon extend into Santa Clara County and its residents will also benefit from these projects.
 - SFMTA: For SFMTA, the nearly \$1.2 billion in local revenues include existing sales tax and revenue bonds as well as anticipated future sales tax, vehicle license fee, and general obligation bonds. A task force has been convened by the San Francisco Mayor's Office and will be finalizing its recommendations by the close of 2013 with the expectation of going to the ballot in 2014 and 2016 to support this local contribution.
 - AC Transit: For AC Transit, the assumed local contribution of \$340 million would come from a portion of future Alameda County and Contra Costa sales tax measures and/or parcel tax augmentations for AC Transit operations and maintenance needs.
- Regional/Other Funding:
 - FTA/STP Funds: The program assumes \$3.3 billion in FTA formula and STP funds. These funds have historically supported transit capital replacement through the Transit Capital Priorities process. Generally, the program timeframe has been 2 to 3 years in duration. The proposed Core Capacity Challenge Grant Program investment strategy would extend the commitment for the identified projects to 15 years. The program would also accelerate FTA and STP funds availability through financing as needed; roughly \$200 million is assumed to pay for financing for timely delivery of this aggressive capital program. The proposal acknowledges the needs of other transit operators in the region by retaining an estimated 33% of expected FTA formula funds for the remaining operators. The proposal also retains funding for the BART Car Phase 1 on-going fixed guideway priorities for rail and ferry operators. A portion of the federal funds for the BART Railcar Replacement and Expansion project may be programmed to BART's preventive maintenance or another capital project and exchanged for BART local funds deposited into the BART Railcar Replacement Funding Exchange Account,

depending on the cash flow needs of the project. The table below provides more detail.

Projected FTA/STP Revenues 2015-2030:	\$	7,549	
Core Capacity Challenge Grants	\$	3,133	42%
Core Capacity Financing Costs	\$	200	3%
BART & SFMTA Fixed Guideway Caps	\$	1,235	16%
Remaining BART Car Phase 1 Commitment	\$	481	6%
Other Operators	\$	2,500	33%
Total	\$	7,549	100%

- *AB664 Funds:* The program assumes \$152 million in AB664 bridge toll funds. These funds have historically supported transit capital replacement by contributing towards local matching funds for eligible operators in the Transit Capital Priorities process. Generally, the funds are programmed annually. The proposed Core Capacity Challenge Grant Program investment strategy would extend the commitment for the identified projects to 15 years, and would accelerate availability of these toll funds by frontloading AB664 revenues that are available as part of a Bay Area Toll Authority (BATA) revenue transfer to MTC in 2010.
- *BATA Project Savings:* With the completion of the Regional Measure 1 highway and bridge projects and the opening of the New East Span of the Bay Bridge, BATA project savings are proposed to be directed to the Core Capacity Challenge Grant Program. Staff has determined that these transit projects are eligible bridge improvement projects because they will improve functioning or use of one or more of the state-owned bridges. As such, these project expenditures, in an amount of \$250 million, are proposed to be added to BATA's long-range plan and budget.
- *SFO Net Operating Revenues:* A commitment dating from 1988 and the first rail extension agreement, MTC Resolution 1876, directs \$145 million of the net operating surplus generated by the San Francisco International Airport (SFO) BART Extension to fulfill the remaining SamTrans' capital contribution to the BART system, for the Warm Springs Extension. This proposal would direct these funds to BART's rail car purchase project, which includes rail cars for the Warm Springs extension project. The Warm Springs construction costs were met through other regional funding contributions as part of the 2008 MTC Resolution 3434 Strategic Plan. SFO Net Operating Revenue satisfies Samtrans buy-in to the BART District originally dedicated to the BART to Warm Springs project.
- *Cap and Trade Revenues:* AB 574 (Lowenthal) seeks to reserve California Cap and Trade allowance revenue from transportation fuels for transportation-related

expenditures. Plan Bay Area included an estimated \$3.1 billion over the 28-year period as available to the region. While the distribution of funds to the MPO's has not yet been finalized, a draft framework and set of principles for Cap and Trade revenues, including \$900 million for the Core Capacity Challenge Grant program, has been proposed and is pending Commission approval.

- *FTA New Starts Core Capacity:* With the enactment of MAP-21, this new category of eligible projects was added to the New Starts Program. Projects eligible for this funding must expand capacity by at least 10% in existing fixed-guideway transit corridors that are already at or above capacity today, or are expected to be at or above capacity within five years. As part of Plan Bay Area's investment strategy, a reserve of \$660 million in New Starts was established for future East Bay and North Bay projects. BART's train control project aligns well with the intent of this new category of FTA competitive funding and the direction outlined in Plan Bay Area.

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Attachment B Project Descriptions

BART

BART Railcar Replacement and Expansion includes the purchase of 470 new cars, which, together with previously committed funding, would bring BART's fleet to a total of 880 cars: 669 to replace the current fleet, 91 to increase core capacity, 30 for the Warm Springs extension, 60 for the Berryessa extension, and 30 for the extension to San Jose/Santa Clara. The 30 cars for the Silicon Valley extension is subject to the availability of \$100 million in Cap and Trade funding. 350 of the 669 replacement cars are being funded under MTC Resolution No. 4126 and the 60 cars for the Berryessa extension are being funded by VTA through an agreement with BART. The \$1.45 billion cost is in addition to the \$1.38 billion already committed to the project, including \$871 million in regional funding. A portion of the federal funds for the BART Railcar Replacement and Expansion project may be programmed to BART's preventive maintenance or another capital project and exchanged for BART local funds deposited into the BART Railcar Replacement Funding Exchange Account, depending on the cash flow needs of the project. BART's current fleet is either already overdue or due for replacement by 2019.

BART Train Control System involves implementing a new train control system. The current system is aging and needs replacement to restore and retain reliability. A new train control system would increase peak period/peak direction throughput and allow BART to expand its fleet to meet future demand while maintaining service reliability.

BART Hayward Maintenance Center includes improvements to expand the current Hayward Yard by adding storage and transfer/access tracks on the existing BART property and a primary shop, a vehicle-level overhaul shop, a component repair shop, a central warehouse and an expanded shop and storage facility. This project is needed to store and service BART's expanded fleet and will serve as the primary maintenance shop and storage yard for the Berryessa extension fleet.

SFMTA

SFMTA Fleet Replacement includes replacement of all of SFMTA's vehicles as they reach the end of their useful lives between 2016 and 2030. SFMTA's fleet includes 494 buses, 333 trolleys, 151 light rail vehicles, and 67 paratransit vans. Also included in the project is approximately \$300 million for mid-life overhauls to extend vehicle service life and maintain reliability, and the costs of rehabilitating Muni's cable car and historic streetcar fleets.

SFMTA Fleet Enhancement & Expansion expands Muni's light rail vehicle fleet by 74 cars: 24 for the Central Subway extension and 50 to increase capacity on existing lines. The project would also fund an additional 110 60' articulated buses and the increased cost for replacing 42 40' buses and trolleys with 60' articulated buses and 60' trolleys to increase capacity on high-ridership routes, and the installation of video and data collection systems on Muni vehicles.

SFMTA Facilities Core Improvements provides for the renovation of ageing, overcrowded, and inefficient facilities and the improvements needed to address current and future needs, such as:

- Muni Metro East (MME) Maintenance Facility – construction of a centralized paint and body shop to allow for operational flexibility and added repair bay capacity at Woods Maintenance Facility.
- Burke Central Parts Warehouse – improved retrieval time and productivity through use of high efficiency racking systems and improvements to extend the shelf life of parts and components stored in the facility.
- Woods Maintenance Facility – added repair bay capacity and flexibility to accommodate articulated buses; improvements to extend life of the facility and fully utilize its space efficiently to improve productivity.

AC Transit

AC Transit Fleet Replacement consists of replacement of all of AC Transit's buses as they reach the end of their useful lives between 2015 and 2030. AC Transit's fleet replacement needs during this period include 150 40' standard transit buses, 57 60' articulated buses, 91 30' buses, 67 40' suburban transit buses, and 39 45' over-the-road coaches.

AC Transit Fleet Expansion includes procurement of 79 Diesel Electric Hybrid buses to implement the service expansions called for under AC Transit's Comprehensive Operations Analysis.

AC Transit Facility Replacement & Rehabilitation includes replacement of equipment such as communications and navigation systems, bus lifts, fuel islands, bus washers, waste treatment systems, and underground storage tanks at AC Transit's maintenance and operations facilities as

the equipment reaches the end of its useful life. The funding would also allow for re-opening of the Richmond Maintenance Facility.

Date: December 18, 2013
W.I.: 1512
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Attachment C

Terms and Conditions

General Terms

- a) Continue Transit Capital Priorities Process for Other Operators: The FTA revenue assumption acknowledges the needs of other operators in the region by retaining an estimated 33% of expected FTA formula funds for the remaining operators and only commits an estimated 42% of expected FTA formula funds to this program. This percentage attempts to hold all the other operators harmless and retains funding for on-going fixed guideway priorities for rail and ferry operators based on projection of past needs.
- b) Revenues Availability: MTC agrees to program Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) funds as set forth in Attachment A in a timely manner in order to meet cash flow needs and minimize financing costs, subject to Congressional authorization and appropriation of funds, and MTC's ability to meet other critical regional transit capital needs. MTC may substitute other available MTC-controlled funds in place of available FTA funds specified in the Program.
- c) Strategic Review: A strategic review of the Core Capacity Challenge Grant program will be conducted at least every 5 years in order to monitor operator project delivery and local contributions. This will also allow staff to address any changes in the demand for capital projects or the revenue landscape.

Operator Conditions

- a) Local Match Contributions: In order to qualify for challenge grant funding, AC Transit, BART and SFMTA are required to provide a minimum of 30% matching funds overall, and at least 25% for fleet replacement projects. The operators will be required to provide to MTC a board-approved commitment of local match dollars before the Program funds are programmed and allocated to them.
- b) Compliance with TSP Performance Metrics: Plan Bay Area assumed that the recommendations of the Transit Sustainability Project would be implemented to complement cost control and service improvements already implemented by the region's transit operators. In order to qualify for challenge grant funding, this proposal requires AC Transit, BART, and SFMTA to meet the Transit Sustainability Project's performance objectives outlined in MTC Resolution No. 4060 that call for a 5% real reduction in at least

one of three performance measures (cost per service hour, cost per passenger or cost per passenger mile) by FY2016-17 and no growth beyond CPI thereafter.

- c) Compliance with Funding Requirements: AC Transit, BART and SFMTA are required to comply with all the applicable local, state, and federal requirements for funds programmed by MTC.
- d) Cash flow Needs and Updates: AC Transit, BART and SFMTA are required to provide MTC with an initial cash flow before the program funds are programmed and allocated to them; and update MTC whenever there are significant changes to the cash flow or annually at a minimum.